Research areas include the areas that are in Kulon Progo highlands zone, administratively located in Kulon Progo Regency, D.I. Yogyakarta. Geographically located at coordinates 405000 m – 410000 m and 9132000 m – 9137000 m UTM 49 Zone, with a scale 1:25.000, and wide area 25 km2. In geomorphic, the study area was divided into three units formed by the origin, the origin of structural formations consisting of: Geomorphic Highlands Homoklin Unit (S1). Formation denudasional origin consisting of: Geomorphic Highlands Eroded (D1). Then formatian Fluvial origin consisting of: Body River (F1) and Alluvial Plain Geomorphic Unit (F2). Drainage pattern that develops in research area that is subdendritik, alteration pattern of dendritic patterns from topography influence and geological structure that works with the geomorphology stadia that have reached adult stage. Stratigraphy of the study area consists of three rock units, from old to young is Breksi Monomik Kaligesing Unit aged Late Oligocene - Early Miocene. Age is determined based on a data set of regional age (Harsono Pringgoprawiro and Riyanto, 1987). Limestone Unit Sentolo Middle Miocene - Early Pliocene (N14-N19) and deposited on environment bathymetry neritik outer edge, and Alluvial sediment that have Holocene age. Geological structures that develop in study area form the muscular structure and types of faults is Normal Left Slip Fault. From the analysis aspects of biology, physics and chemistry at Sentolo Formation, the depositional environment Sentolo Formation in the study area is Toe of Slope (Wilson, 1975). Geological potency in research area consists of positive potential is minerals category C namely limestone, while a negative potential is type of motion ground namely slides (Hansen, 1984).